We claim:

1. An apparatus for implanting an ocular implant at a location in a patient's eye, comprising:

an elongate housing having a longitudinal axis;

a cannula extending longitudinally from the housing, the cannula having a lumen extending therethrough and being configured to receive an ocular implant within the cannula lumen;

a push rod receivable within the cannula lumen and moveable from a first to second position; and

a linkage having a moveable end connected to the push rod, and a fixed end secured to the housing, the moveable end of the linkage being capable of movement from a first to a second position relative to the housing upon application to the linkage of a force normal to the housing axis, thereby moving the push rod from the first to the second position.

2. The apparatus of claim 1 wherein the moveable end of the linkage is capable of translational motion along the housing axis.

3. The apparatus of claim 1 further comprising an ocular implant located within the lumen cannula.

4. The apparatus of claim 3 wherein said implant is a microimplant.

5. The apparatus of claim 3 wherein said implant is biodegradable.

6. The apparatus of claim 1 further comprising an actuating lever engageable with said linkage.

7. The apparatus of claim 6 wherein the actuating lever is pivotally mounted within said housing.

8. The apparatus of claim 6 wherein said actuating lever further includes a button extending from the housing for manual depression of the lever.

9. The apparatus of claim 1 wherein said linkage further comprises a plurality of flexibly joined segments.

10. The appartus of claim 1 wherein said linkage further comprises one or more flexible bow elements.

11. The apparatus of claim 10 wherein a portion of at least one of the flexible bow elements extends from the housing for manual depression.

12. The apparatus of claim 1 wherein said linkage further comprises a cam assembly.

13. The apparatus of claim 1 wherein the cannula has an outer diameter of approximately 0.032 inches or less.

14. The apparatus of claim 1 wherein the cannula has an outer diameter of approximately 0.028 inches or less.

15. The apparatus of claim 1 wherein the cannula has a cross-sectional area of approximately 0.0008 square inches or less.

16. An apparatus for implanting an ocular implant at a location in a patient's eye, comprising:

an elongate housing having a longitudinal axis;

a cannula extending longitudinally from the housing, the cannula having a lumen extending therethrough;

a push rod received within the cannula lumen and in engagement with the implant, the plunger moveable from a first to second position; and

a linkage having a moveable end connected to the push rod, and a fixed end secured to the housing,

an actuating lever having a first end pivotally mounted within the housing, and a second end in engagement with the linkage,

wherein movement of the second end of the actuating lever against the linkage in a direction normal to the housing axis causes translational movement of the moveable end of the linkage from a first to second position parallel to the housing axis, thereby moving the push rod from the first to the second position and ejecting the implant from the cannula.

17. The apparatus of claim 16 further comprising an ocular implant located within the lumen cannula.

18. The apparatus of claim 17 wherein said implant is a microimplant.

19. The apparatus of claim 16 wherein said actuating lever further comprises a button extending from the housing for manual depression of the lever.

20. The apparatus of claim 16 wherein the cannula has an outer diameter of 0.032 inches or less.

21. The apparatus of claim 16 wherein the cannula has an outer diameter of approximately 0.028 inches or less.

22. The apparatus of claim 16 wherein the cannula lumen has a cross-sectional area of 0.0008 square inches or less.

23. A method of delivering an ocular implant at a location in a patient's eye using the apparatus of claim 1 or 16.

24. A method of delivering an ocular microimplant at a location in a patient's eye using the apparatus of claim 13 or 20.

25. A method of delivering an ocular implant at a location in a patient's eye using an apparatus comprising a cannula having a proximal end, a distal sharp end, and a lumen

extending therethrough, a microimplant received within the lumen, and a push rod received through the proximal end of the cannula, the method comprising the steps of:

(a) puncturing the outer layer of a patient's eye with the cannula and inserting the cannula into a patient's eye to a desired location;

(b) moving the push rod from the proximal end of the cannula toward the distal end of the cannula, thereby ejecting the implant from the cannula; and

(c) removing the cannula and push rod from the patient's eye.

26. The method of claim 25 wherein said implant is a microimplant.

27. The method of claim 26 wherein said implant is biodegradable.

28. The method of claim 26 wherein the puncture in the patient's eye created by the insertion of the cannula in step (a) is self-sealing upon the removal of the cannula in step (c).

29. The method of claim 26 wherein the cannula has an outer diameter of 0.032 inches or less.

30. The method of claim 26 wherein the cannula has an outer diameter of approximately 0.028 inches or less.

31. The method of claim 26 wherein the cannula lumen has a cross-sectional area of 0.0008 square inches or less.

32. The method of any one of claims 26-31 wherein the puncturing step (a) further comprises inserting the cannula into the patient's eye at an angle of 45° or less relative to the eye surface.

33. An apparatus for implanting an ocular implant at a location in a patient's eye comprising:

a cannula having a lumen extending therethrough configured to receive an ocular implant; and

means for retaining an implant received within the cannula lumen to minimize inadvertent release of the implant from the cannula.

34. The apparatus of claim 33 wherein the retention means comprises a frictional stop which extends into the cannula lumen for contacting an implant received therein.

35. The apparatus of claim 34 wherein the frictional stop comprises an O-ring, at least a portion of which extends into the cannula lumen for contacting an implant received therein.

36. The apparatus of claim 35 wherein the cannula includes a notch, the notch providing for communication between the cannula lumen and cannula exterior, and wherein the O-ring is positioned around the cannula and where a portion of the O-ring is received in the notch and extends into the lumen.

37. The apparatus of claim 34 wherein the cannula includes a notch, the notch providing for communication between the cannula lumen and cannula exterior, and wherein the frictional stop comprises tubing positioned around the cannula and where a portion of the tubing is received in the notch and extends into the lumen.

38. The apparatus of claim 34 wherein the frictional stop comprises a spring mechanism.

39. The apparatus of claim 34 wherein the frictional stop is integral to the cannula.

40. The apparatus of claim 33 wherein the retention means comprises a biocompatible adhesive for adhering the implant to the lumen.

41. The apparatus of claim 33 wherein the retention means comprises a frictional coating applied to the cannula lumen.

42. The apparatus of claim 33 wherein the retention means comprises a breakable membrane deployed within the cannula lumen.